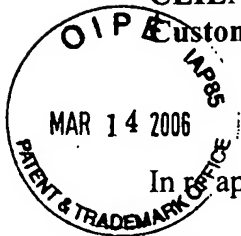


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DOCKET NO.: P05827
CLIENT NO.: NATI15-05827
Customer No.: 23990

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In application of : RICHARD W. FOOTE
U.S. Serial No. : 10/803,273
Filed : March 18, 2004
For : SYSTEM AND METHOD FOR PROVIDING IMPROVED
TRENCH ISOLATION OF SEMICONDUCTOR DEVICES
Group No. : 2823
Examiner : George R. Fourson III

MAIL STOP AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

The undersigned hereby certifies that the following documents:

1. Response to Restriction Requirement; and
2. Postcard receipt

relating to the above application, were deposited as "First Class Mail" with the United States Postal Service, addressed to, MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on **March 10, 2006**.

Date:

March 10, 2006

Mailer

Kathleen Porter

Date:

March 10, 2006

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DOCKET NO. P05827
CLIENT NO. NATI15-05827
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In re application of: Richard W. Foote
Serial No.: 10/803,273
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RESPONSE TO RESTRICTION REQUIREMENT

In response to the Restriction Requirement dated February 10, 2006, the Applicant provisionally elects the claims of Group I (Claims 1-12), WITH TRAVERSE.

A Restriction Requirement must provide the particular factual basis for asserting that restriction is necessary. In particular, the “particular reasons ... for holding that the inventions as claimed are either independent or distinct should be concisely stated.” (*MPEP* § 816). A “mere statement of conclusion” is inadequate. (*MPEP* § 816). Moreover, in making a restriction, it is the “claimed subject matter that is considered,” and “such claimed subject matter must be

compared in order to determine the question of distinctness or independence.” (*MPEP* § 806.01).

First, the Patent Office has already examined Claims 1-20 and issued an Office Action rejecting those claims. As a result, it is clear that the different classifications of the claims have not imposed an undue burden on the Patent Office or made examination of the claims overly difficult.

Second, the Restriction Requirement asserts that the claims of Groups I and II are related as a “process of making” and a “product made” and that the product can be made by another materially different process. However, the following shows how the elements of Claim 1 (Group I) and the elements of Claim 13 (Group II) clearly correspond to one another:

<u>Claim 1</u>	<u>Claim 13</u>
A method for manufacturing an isolation trench in a semiconductor device, said method comprising the steps of:	An isolation trench for use in a semiconductor device comprising:
providing a substrate for said semiconductor device;	a substrate of said semiconductor device;
etching a trench in said substrate;	a trench etched in said substrate;
growing a silicon dioxide liner in said trench;	a silicon dioxide liner grown in said trench;
filling said trench with polysilicon material;	polysilicon material filling said trench; and
depositing polysilicon material on top of said filled trench to protect said silicon dioxide liner; and	polysilicon material deposited on top of said filled trench to protect said silicon dioxide liner
etching the deposited polysilicon material so as to leave a portion of the deposited polysilicon material that is over the trench and that extends laterally over at least one edge of the trench.	and etched so as to leave a portion of the deposited polysilicon material that is over the trench and that extends laterally over at least one edge of the trench.

The Restriction Requirement has not established that the “product” of Claim 13 could be made using a materially different process than the “process” of Claim 1, given these corresponding recitations.

The Restriction Requirement does assert that the “product” of Claim 13 could be made using a “second substrate with a polysilicon layer,” which would be bonded to a “substrate with polysilicon filling [a] trench.” However, this process would still read on Claim 1. Claim 1 recites “depositing polysilicon material on top of [a] filled trench to protect [a] silicon dioxide liner.” The process proposed in the Restriction Requirement (bonding a second substrate with a polysilicon layer to a substrate with polysilicon filling a trench) also involves depositing a polysilicon material on top of a filled trench. As a result, this proposed process does not represent a “materially different process” than the method of Claim 1.

The Restriction Requirement also makes the assertion that the “polysilicon layer could be formed by a process comprising etching to thin the layer even if not etched.” The Applicant is unable to determine the exact meaning of this statement. On its face, the Restriction Requirement appears to be asserting that a polysilicon layer could be thinned by etching without actually etching the polysilicon layer. The Applicant respectfully requests clarification of this statement in the next official Office communication.

To the extent that this statement attempts to distinguish between the recitations of Claims 1 and 13, this is improper as shown in the table above. Claim 1 recites “etching the deposited polysilicon material so as to leave a portion of the deposited polysilicon material that is over the trench and that extends laterally over at least one edge of the trench.” Claim 13 recites deposited polysilicon material that is “etched so as to leave a portion of the deposited polysilicon material that is over the trench and that extends laterally over at least one edge of the trench.” It is unclear how the product of Claim 13 could be made by a materially different process since both

claims clearly recite that polysilicon material is etched “so as to leave a portion of the deposited polysilicon material that is over the trench and that extends laterally over at least one edge of the trench.” Moreover, it is unclear how the product of Claim 13 could be made by “etching to thin” a polysilicon layer “even if not etched” as asserted in the Restriction Requirement.

For these reasons, the Restriction Requirement is improper, and the Applicant respectfully requests full examination of all pending claims.

SUMMARY

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.


The Commissioner is hereby authorized to charge any fees connected with this communication (including any extension of time fee) or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: March 10, 2006

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